

the neutralizing reaction that takes place by the introduction of sulfuric acid to the slurry. This is an important feature of applicant's invention wherein the remaining sodium sulfate acts as a catalyst for the formation of the carbonaceous crystals that characterize the internal crystalline structure of cementitious matrixes. See applicant's specification at page 5, lines 26-27 and at page 6, lines 1-5.

In contrast to applicant's claimed invention, both Jaques et al. and Iwu wash their resulting slurries. See Iwu, column 1, lines 52-57 and Jaques et al., column 5, lines 19-23. In fact, both Jaques et al. and Iwu teach washing of the slurry four times.

Further, Iwu, in column 1, line 25, teaches away from use of sulfuric acid because Iwu gets sodium chloride from hydrochloric acid and does not get catalyzing sodium sulfate, as provided for in applicant's claims.

With respect to Jaques et al., that patent "digests" silica ore without mentioning pH, neutralization of any sodium hydroxide, or sodium sulfate formation.

In addition, neither Jaques et al. nor Iwu teaches the step of pulverizing bauxite tailings or pulverizing bauxite tailings into a generally homogenous powder sufficiently fine to generally pass through a 16 mesh screen, as provided in applicant's claims. Jaques et al. also does not teach agitating of the bauxite tailings as water is added to the tailings. See also applicant's specification at page 2, lines 26-27; page 3, lines 1-27 and page 4, lines 1-9.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Verdegaal Bros. v Union Oil Co. of California, 814 F.2d. 628, 631, 2 USPQ 2d. 1051, 1053 (Fed. Cir. 1987) and MPEP §2131. The identical invention must be shown in as complete detail as is contained in the claim.


Richardson v Suzuki Motor Company, 868 F.2d. 1226, 1236, 9 USPQ 2d. 1913, 1920 (Fed. Cir. 1989) and MPEP §2131.

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. See In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. See In re Wilson, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970), and MPEP §2143.03.

If an independent claim is non-obvious under 35 USC 103, then any claim depending therefrom is non-obvious. See In re Fine, 837 F.2d 1071, 5 USPQ 2d 1596 (Fed. Cir. 1988), MPEP §2143.03.

For the reasons stated above, reconsideration of this application and allowance of new claims 29-44 is respectfully requested.

Respectfully submitted,


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